

Algebraic Reasoning to Algebra

Infinitely Many ~~to~~ no solutions

$$3) \quad 5(t + 3.5) = 2t + 3t + 17.5$$
$$5t + 17.5 = 5t + 17.5$$

Infinitely Many

$$\begin{array}{r} 1) \quad 5m + 4 = 3m + 12 \\ \quad -3m \qquad \quad -3m \\ \hline \end{array}$$

$$2m + 4 = 12$$

$$\begin{array}{r} -4 \qquad -4 \\ \hline \end{array}$$

$$\frac{2m}{2} = \frac{8}{2}$$

$$m = 4$$

$$4) \frac{1}{2}(5z + 1) = \frac{2}{2}z + \frac{3}{2}z$$

$$\frac{5}{2}z + \frac{1}{2} = \frac{5}{2}z$$

NO solution

$$2) \quad 8 - 21r = 9(2 + r)$$

$$8 - 21r = 18 + 9r$$

-8

-8

$$-21r = 10 + 9r$$

$-9r$

$-9r$

$$-30r = 10$$

-30

-30

$$r = -\frac{1}{3}$$

$$\frac{200}{500}$$

$$\frac{2}{50} = \frac{1}{25}$$

5)

$$4(x-5) = 4x - 20$$

$$4x - 20 = 4x - 20$$

Infinitely Many

$$-6x + 12 = 3x + 12 - 9x$$

$$-6x + 12 = -6x + 12$$

Infinitely Many

$$7x + 3 = 7x - 3$$

NO solution

$$5x + 2.5 - 5x = 0$$

$$2.5 = 0$$

NO solution